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FY-67
QUARTERLY REPORT
No. 4
31 May 1967

(1 March 1967 - 31 May 1967)

Dronound by

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Approved by:

25X1

Date: 22 June 1967

GROUP 1
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PROGRAM OBJECTIVE

To investigate through studies, tests, and the fabrication and use of engineering breadboard equipment, new methods or devices which will further the state-of-the art in photographic techniques and practices as it pertains to improved extraction of collected intelligence information from photographic materials.

SUMMARY

- 1. This Contract FY-67 Quarterly Report No. 4 is submitted in lieu of the May 67 Monthly Report and covers progress for the months of March, April, and May 1967.
- 2. Detailed reports on approved, active PARs are found in Section II of this report.

SECTION I

INTRODUCTION

DISCUSSION

3. PAR Status. The table below lists all PARs in numerical order for ready reference, and the title (condensed in some cases) and status of each.

PAR	Title	Status
201	Travel and Liaison	Complete
557 505\	Briefing Print Enlarger/ 3X - 15X Enlarger	Completed/TWX 6351 dtd 21 Jan 66
203	Rapid Access Printer	Completed 4 Aug 65
204	Contact Chip Printer	Termination Rpt completed 27 Jan 65
205	Precision 4X Enlarger	Termination Rpt completed 27 Jan 65
206	Reversal Processing Study	Completed 21 May 65
207	Contact Printer Study	Completed 6 Apr 66
208	Non-Elec. Image Enhancement	Cancelled
209	Phosphor Viewer	Cancelled
210	Laminated Slides	Completed 4 Sep 64
211	Processing Effects Study	Completed 28 Oct 65
212	Color Acq. System Review	Completed 28 Oct 65
213	Color Reprod. Review	Completed 13 Aug 65
214	Roller Transport Processor (12-Inch)	Closed/TWX 7284 dtd 23 May 66
215	Roller Transport Processor (24-Inch)	Closed/TWX 7284 dtd 23 May 66
216	Laser Photographic Exposure	Completed 12 Feb 65
217	Optimization of Lasers	Completed 9 Nov 65
218	Autofocus Systems	Not to be submitted
219	Opt. vs Contact Ptg. 1:1	Not to be submitted
220	Static Elec. Hold-Down	Disapproved
221	Lens Bench Manual	Not to be submitted
222	Auto Stereo Regstrn System	Completed 3 Mar 65
223	Monochr. Lens System	Disapproved
225	Micro-D Training Program	Terminated
226	Edge Trace Meas., Micro-D	Completed

PAR	Title	Status
227	Color Viewer	Disapproved
228	Vectograph Study	Not to be submitted
229	Optical Design Film Viewer	Not to be submitted
230	10X Color Lens	Disapproved
231	10-20-40X Color Lamphouse	Disapproved
232	Automated Edge Trace Device	Disapproved
233	Zoom (6X to 60X) Projection Lens	Terminated/TWX 7878 dtd 26 Jul 66
234	MTF Exposure Device	Disapproved
235	Automation Program Study	Disapproved
2 3 6	Film Disposal Rewind Unit	Disapproved
2 37	Briefing Aids	Completed 25 Jul 65
2 3 8	Equipment Installation	Closed/TWX 7284 dtd 23 May 66
23 9	Administration	Closed
240	Not Assigned	-
241	Not Assigned	-
242A	Color Demonstration Material	Completed 29 Mar 66
243A	Briefing Print Enlarger	Active
544	Spare Parts for RT Processors	Active
245	BPE High Magnification Lens Sets	Active
246	RT-12 and RT-24 Operational Improvements	Active

SECTION II
PAR PROGRESS

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Contract

FY-67 Quarterly Report No. 4

PAR 243A 31 May 67

SUBJECT: BPE (Prototype)

TASK/PROBLEM

1. Design, fabricate, and test a prototype briefing print enlarger (BPE) based upon tests and observations of the breadboard equipment developed on the combined PAR 202/224.

DISCUSSION

- 2. Mechanical and electrical assembly of the prototype BPE was completed. The instrument was moved on 31 Mar 67 into the area reserved for engineering and QC tests.
- 3. Engineering tests of electrical, mechanical, and optical functioning have been in progress during the remainder of the quarter.
- 4. It has been necessary to correct several fabrication and design errors. The need for several design improvements was recognized, changes have been made in the prototype instrument, and the drawings were modified to agree with the instrument.
- 5. The major part of the work of preparation of a preliminary operational and maintenance manual has been completed.
- 6. A second revision of the Tentative Specification 469-333, dated 15 Mar 67, was delivered during the quarter.
- 7. Two conferences were held in the contractor's plant with the customer's technical liaison representatives during this quarter for the discussion of progress on this project and on the progress of the manufacture of seven additional enlargers on another contract.

PLANNED ACTIVITY

- 8. Engineering tests and QC tests of the enlarger will be completed in the first month of next quarter. The prototype enlarger will be delivered to and installed in the customer's plant during the early part of the quarter.
- 9. Complete preparation of the operation and maintenance manual. Deliver ten copies with the prototype enlarger.
 - 10. Deliver one fly-away spare parts kit for the prototype enlarger.

-5-

Contract

FY-67 Quarterly Report No. 4

PAR 244 31 May 67 25X1

SUBJECT: Spare Parts for RT Processors

TASK/PROBLEM

1. Provide recommended spare parts for the RT-12 and RT-24.

DISCUSSION

- 2. The second partial shipment of parts was made on 26 May 67, and consisted of approximately 25% of the parts itemized in the original proposal. This shipment, together with the shipment reported in FY-67 Quarterly Report No. 3 dated 28 Feb 67, constitutes 50% of the parts.
 - 3. Fabrication of the remaining parts is in progress.

PLANNED ACTIVITY

4. The balance of the parts will be shipped during the first quarter FY-68. At the present time, the delivery of parts is one month behind schedule.

Contract

FY-67 Quarterly Report No. 4

PAR 245 31 May 67 25X1

SUBJECT: BPE High-Magnification Lens Sets

TASK/PROBLEM

1. Design, fabricate, and test prototype optical systems to extend the Briefing Print Enlarger (prototype) PAR 243A upper limit magnification range from 60X to 140X - 160X.

DISCUSSION

- 2. During the quarter, fabrication of the condenser elements was completed.
- 3. Fabrication of the objective lens assemblies and the objective focusing assemblies has been in progress.
- 4. Fabrication of the condenser mechanical assemblies was initiated during the quarter.

PLANNED ACTIVITY

- 5. Accept delivery of the two objective lenses and their focusing assemblies. Test lens performance with substitute condenser assemblies on the BPE breadboard.
 - 6. Complete fabrication of the deliverable condenser assemblies.
- 7. Deliver objective and condenser assemblies to the customer's plant. Adjust and make engineering tests of the assemblies on the prototype BPE in the customer's shop at his convenience.

Contract

FY-67 Quarterly Report No. 4

PAR 246 31 May 67

SUBJECT: RT-12 and RT-24 Operation Improvements

TASK/PROBLEM

1. Conduct necessary design, fabrication, and test effort to implement operational improvements to the RT-12-inch and RT-24-inch Processors as requested by the customer.

DISCUSSION

- 2. During the quarter, the following problem areas were corrected:
- a. Contractor personnel visited the customer's facility on 13 Mar 67 and
- (1) Installed a new pump seal on the bleach pump, a new film guide on the exit turnaround crossover, and a new turnaround roller.
- (2) Reduced the diameter of the main drive rollers which corrected overdrive that had resulted in stripped gear teeth, and
- (3) Corrected misalignment of the film path which had resulted from loose roller support pins and nuts, one missing roller-support pin and nut, and a stripped gear.
- b. As no improvements or corrections were required during April, no formal report was made.
- c. During May, the customer reported a leak in the clear solution pump. This problem was eliminated by installation of a new pump seal by the customer at contractor direction.

PLANNED ACTIVITY

3. Make improvements and investigate problem areas as requested by the customer.

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SECTION III
FISCAL SUMMARY